CLAIMS

What is claimed is:

1. An ink cartridge in which an appropriate negative pressure is maintained comprising:

a foam chamber generating a negative pressure, and having foam contained inside, an ink filter and an ink head disposed therein and a lower part partially inclined;

an ink chamber, to store ink, formed at one side of the foam chamber and separated from the foam chamber by a partition having an opening to provide a connection to the foam chamber; and

a cartridge cover having an ink injection port formed thereon and covering a top of the ink chamber and the foam chamber, wherein a lower part of the foam is formed to be larger than an inner shape of the foam chamber, except shapes of the ink filter and the ink head, so that the foam around the ink filter is more compressed than the foam around the opening.

2. The ink cartridge according to claim 1, wherein the foam chamber has a lower part having one or more inclines.

3. The ink cartridge according to claim 1, wherein the lower part of the foam chamber is inclined downward from the opening to the ink filter.

4. The ink cartridge according to claim 1, wherein a lower part of the foam has one or more inclines.

5. The ink cartridge according to claim 1, wherein the foam comprises:

a first section substantially near the ink filter, which is compressed;

a second section substantially along the inclined part, which is less compressed than the first section of foam; and

a third section, including foam which is substantially not in the first and second sections, which is less compressed than the second section of foam.

6. The ink cartridge according to claim 5, wherein the injected ink concentrates in the first section of foam, and, to a lesser extent, in the second section of foam.

7. The ink cartridge according to claim 1, wherein external air forms air bubbles in the foam which move toward the lower part of the foam chamber, rise up to the opening, and into the ink chamber, wherein as the air bubbles move through the compressed foam, the air bubbles decrease in size.

8. An ink cartridge with air that flows inside an ink chamber at a regular time comprising:

a foam chamber generating a negative pressure, and having foam with an air path formed therein in a direction from an upper portion to a lower portion of the foam contained inside, an ink filter and an ink head disposed therein and a lower part partially inclined;

an ink chamber, to store ink, formed at one side of the foam chamber and separated from the foam chamber by a partition having an opening to provide a connection to the foam chamber; and

a cartridge cover having an ink injection port formed thereon and covering top of the ink chamber and the foam chamber,

wherein a lower part of the foam is formed to be larger than an inner shape of the foam chamber, except shapes of the ink filter and the ink head, so that the foam around the ink filter is more compressed than the foam around the opening.

9. The ink cartridge according to claim 8, wherein the foam chamber has a lower part having one or more inclines.

10. The ink cartridge according to claim 8, wherein the lower part of the foam chamber is inclined downward from the opening to the ink filter.

11. The ink cartridge according to claim 8, wherein a lower part of the foam has one or more inclines.

12. The ink cartridge according to claim 8, wherein the foam comprises:

a first section substantially near the ink filter, which is compressed;

a second section substantially along the inclined part, which is less compressed than the first section of foam; and

a third section, including foam which is substantially not in the first and second sections, which is less compressed than the second section of foam.

13. The ink cartridge according to claim 12, wherein the injected ink concentrates in the first section of foam, and, to a lesser extent, in the second section of foam.

14. The ink cartridge according to claim 8, wherein external air forms air bubbles in the foam which move toward the lower part of the foam chamber, rise up to the opening, and into the ink chamber, wherein as the air bubbles move through the compressed foam, the air bubbles decrease in size.